

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An electronic device, comprising:
a substrate;
a plurality of first electrodes on said substrate;
a plurality of substantially electrically isolated conducting polymer regions on said plurality of first electrodes;
an active electronic layer on said plurality of substantially electrically isolated conducting polymer regions; and
a plurality of second electrodes on said active electronic layer, where the plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel is located and at each pixel there is a conducting polymer region of the plurality of substantially electrically isolated conducting polymer regions that is electrically isolated from [[a]]each conducting polymer region at [[an]]each adjacent pixel,
wherein said plurality of substantially electrically isolated conducting polymer regions are formed by selectively depositing a solution that includes water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and a ratio of said PEDOT to said PSS is one part by weight of said PEDOT to at most ten parts by weight of said PSS.

2. (Original) The electronic device of claim 1 wherein said ratio of said PEDOT to said PSS is one part by weight of said PEDOT to six parts by weight of said PSS.

3. (Original) The electronic device of claim 1 wherein said plurality of substantially electrically isolated conducting polymer regions are selectively deposited using any one of the following deposition techniques: ink jet printing, flex printing, or screen printing.

4. (Previously Presented) The electronic device of claim 1 wherein
said electronic device is an organic light emitting diode ("OLED") display;
said plurality of first electrodes are anodes;
said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

5. (Canceled)

6. (Withdrawn – Currently Amended) A method to fabricate an electronic device,
comprising:

depositing a plurality of first electrodes on a substrate;

selectively depositing a conducting polymer material on said plurality of first electrodes
to form a plurality of substantially electrically isolated conducting polymer regions on said
plurality of first electrodes;

depositing an active electronic layer on said plurality of substantially electrically isolated
conducting polymer regions; and

depositing a plurality of second electrodes on said active electronic layer, where the
plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel
is located and at each pixel there is a conducting polymer region of the plurality of substantially
electrically isolated conducting polymer regions that is electrically isolated from each
conducting polymer region at each adjacent pixel,

wherein said conducting polymer material is comprised of water,
polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and a ratio of
said PEDOT to said PSS is one part by weight of said PEDOT to at most ten parts by weight of
said PSS.

7. (Withdrawn) The method of claim 6 wherein said ratio of said PEDOT to said PSS is
one part by weight of said PEDOT to six parts by weight of said PSS.

8. (Withdrawn) The method of claim 6 wherein selectively depositing said conducting polymer material includes any one of the following deposition techniques: ink jet printing, flex printing, or screen printing.

9. (Withdrawn) The method of claim 6 wherein
said electronic device is an OLED display;
said plurality of first electrodes are anodes;
said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

10. (Canceled)

11. (Currently Amended) An electronic device, comprising:
a substrate;
a plurality of first electrodes on said substrate;
a plurality of substantially electrically isolated conducting polymer regions on said plurality of first electrodes;
an active electronic layer on said plurality of substantially electrically isolated conducting polymer regions; and
a plurality of second electrodes on said active electronic layer, where the plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel is located and at each pixel there is a conducting polymer region of the plurality of substantially electrically isolated conducting polymer regions that is electrically isolated from each conducting polymer region at each adjacent pixel,
wherein said plurality of substantially electrically isolated conducting polymer regions are formed by selectively depositing a solution that includes water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and each of said plurality of substantially electrically isolated conducting polymer regions has a conductivity that ranges from about 1.5×10^{-3} S/cm to about 10 S/cm.

12. (Original) The electronic device of claim 11 wherein said conductivity of each of said plurality of substantially electrically isolated conducting polymer regions ranges from about 10^{-3} S/cm to about 10^{-1} S/cm.

13. (Original) The electronic device of claim 11 wherein said plurality of substantially electrically isolated conducting polymer regions are selectively deposited using any one of the following deposition techniques: ink jet printing, flex printing, or screen printing.

14. (Previously Presented) The electronic device of claim 11 wherein
said electronic device is an organic light emitting diode ("OLED") display;
said plurality of first electrodes are anodes;
said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

15. (Canceled)

16. (Withdrawn – Currently Amended) A method to fabricate an electronic device, comprising:

depositing a plurality of first electrodes on a substrate;
selectively depositing a conducting polymer material on said plurality of first electrodes to form a plurality of substantially electrically isolated conducting polymer regions on said plurality of first electrodes;
depositing an active electronic layer on said plurality of substantially electrically isolated conducting polymer regions; and
depositing a plurality of second electrodes on said active electronic layer, where the plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel is located and at each pixel there is a conducting polymer region of the plurality of substantially electrically isolated conducting polymer regions that is electrically isolated from each conducting polymer region at each adjacent pixel,

wherein said conducting polymer material is comprised of water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and each of said plurality of substantially electrically isolated conducting polymer regions has a conductivity that ranges from about 1.2×10^{-4} S/cm to about 10 S/cm.

17. (Withdrawn) The method of claim 16 wherein said conductivity of each of said plurality of substantially electrically isolated conducting polymer regions ranges from about 10^{-3} S/cm to about 10^{-1} S/cm.

18. (Withdrawn) The method of claim 16 wherein selectively depositing said conducting polymer material includes any one of the following deposition techniques: ink jet printing, flex printing, or screen printing.

19. (Withdrawn) The method of claim 16 wherein
said electronic device is an OLED display;
said plurality of first electrodes are anodes;
said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

20. (Canceled)

21. (Withdrawn – Currently Amended) A method to fabricate an electronic device, comprising:

forming a plurality of first electrodes on a substrate;
nonselectively depositing a conducting polymer material on said plurality of first electrodes to form a continuous conducting polymer layer on said plurality of first electrodes;
patterning said continuous conducting polymer layer to form a plurality of substantially electrically isolated conducting polymer regions on said plurality of first electrodes;
depositing an active electronic layer on said plurality of substantially electrically isolated conducting polymer regions; and

depositing a plurality of second electrodes on said active electronic layer, where the plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel is located and at each pixel there is a conducting polymer region of the plurality of substantially electrically isolated conducting polymer regions that is electrically isolated from each conducting polymer region at each adjacent pixel,

wherein said conducting polymer material is comprised of water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and at least one of: (1) a ratio of said PEDOT to said PSS is one part by weight of said PEDOT to at most ten parts by weight of said PSS, and (2) each of said plurality of substantially electrically isolated conducting polymer regions has a conductivity that ranges from about 1.2×10^{-4} S/cm to about 10 S/cm.

22. (Withdrawn) The method of claim 21 wherein nonselectively depositing said conducting polymer material includes any one of the following deposition techniques: spin coating, dip coating, web coating, or spray coating.

23. (Withdrawn) The method of claim 21 wherein patterning said continuous conducting polymer layer includes any one of the following patterning techniques: laser ablation or plasma discharge.

24. (Withdrawn) The method of claim 21 wherein said ratio of said PEDOT to said PSS is one part by weight of said PEDOT to six parts by weight of said PSS.

25. (Withdrawn) The method of claim 21 wherein said conductivity of each of said plurality of substantially electrically isolated conducting polymer regions ranges from about 10^{-3} S/cm to about 10^{-1} S/cm.

26. (Withdrawn) The method of claim 21 wherein
said electronic device is an OLED display;
said plurality of first electrodes are anodes;

said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

27. (Canceled)

28. (Currently Amended) An electronic device, comprising:

a substrate;

a plurality of first electrodes on said substrate;

a plurality of substantially electrically isolated conducting polymer regions on said plurality of first electrodes;

an active electronic layer on said plurality of substantially electrically isolated conducting polymer regions; and

a plurality of second electrodes on said active electronic layer, where the plurality of second electrodes intersect the plurality of first electrodes, at each intersection a pixel is located and at each pixel there is a conducting polymer region of the plurality of substantially electrically isolated conducting polymer regions that is electrically isolated from each conducting polymer region at each adjacent pixel,

wherein said plurality of substantially electrically isolated conducting polymer regions are formed by:

nonselectively depositing a conducting polymer material on said first electrode to form a continuous conducting polymer layer on said first electrode, and

patterning said continuous conducting polymer layer to form said plurality of substantially electrically isolated conducting polymer regions, and

wherein said conducting polymer material is comprised of water, polyethylenedioxythiophene ("PEDOT"), and polystyrenesulfonic acid ("PSS"), and at least one of: (1) a ratio of said PEDOT to said PSS is one part by weight of said PEDOT to at most ten parts by weight of said PSS, and (2) each of said plurality of substantially electrically isolated conducting polymer regions has a conductivity that ranges from about 1.5×10^{-3} S/cm to about 10 S/cm.

29. (Original) The electronic device of claim 28 wherein nonselectively depositing said conducting polymer material includes any one of the following deposition techniques: spin coating, dip coating, web coating, or spray coating.

30. (Original) The electronic device of claim 28 wherein patterning said continuous conducting polymer layer includes any one of the following patterning techniques: laser ablation or plasma discharge.

31. (Original) The electronic device of claim 28 wherein said ratio of said PEDOT to said PSS is one part by weight of said PEDOT to six parts by weight of said PSS.

32. (Original) The electronic device of claim 28 wherein said conductivity of each of said plurality of substantially electrically isolated conducting polymer regions ranges from about 10^{-3} S/cm to about 10^{-1} S/cm.

33. (Previously Presented) The electronic device of claim 28 wherein
said electronic device is an OLED display;
said plurality of first electrodes are anodes;
said active electronic layer is an organic electroluminescent layer; and
said plurality of second electrodes are cathodes.

34. (Canceled)